

What Is Claimed Is:

- 1) A nonwoven needlepunched article produced from at least one of the group consisting of FR rayon fiber, FR acrylic fiber, FR melamine fiber, FR polyester fiber, FR polyolefin fiber, or FR resin coated fiber; and optionally nonbonding synthetic or natural fiber, wherein said nonwoven article has a weight of at least 2.25 oz. /sq. yd.
- 2) The nonwoven article of claim 1, further comprising a nonbonding synthetic fiber is selected from the group consisting of rayon, polyester, or a mixture thereof.
- 3) The nonwoven article of claim 1, wherein article is produced from at least two of the group consisting of FR rayon fiber, FR acrylic fiber, FR melamine fiber, FR polyester fiber, FR polyolefin fiber, or FR resin coated fiber.
- 4) The nonwoven article of claim 1, wherein said FR resin is selected from the group consisting of phosphorus, phosphorus compound(s), red phosphorus, esters of phosphorus, and phosphorus complexes; amine compounds, boric acid, bromide, urea-formaldehyde compound(s), phosphate-urea compound(s), ammonium sulphate, or halogen based compounds compatible with said nonbonding synthetic fiber.
- 5) The nonwoven article of claim 1, wherein said synthetic fiber comprises from about 10 to about 70 weight % of said article, said synthetic fiber further comprising polyester, and wherein the sum of said FR rayon fiber, said FR acrylic fiber, said FR melamine fiber, said FR polyester fiber, said FR polyolefin fiber, and said FR resin coated fiber comprises from about 25 to about 90 weight % of said article.

- 6) The nonwoven article of claim 1, having about 50 weight % rayon, about 50 weight % polyester, totaling 100 weight %, and about 20 weight % FR resin, based on said 100 weight %.
- 7) The nonwoven article of claim 1, having about 30 weight % FR acrylic, about 25 weight % FR melamine, about 30 weight % FR rayon, and about 15 weight % polyester totaling 100 weight %, and about 20 weight % FR resin, based on said 100 weight %.
- 8) The nonwoven article of claim 1, having about 30 weight % FR rayon, 30 weight % FR acrylic, about 25 weight % FR melamine, about 15 weight % polyester, totaling 100 weight %, and about 20 weight % FR resin, based on said 100 weight %.
- 9) The nonwoven article of claim 1, having about 30 weight % FR rayon, 30 weight % FR acrylic, and about 40 weight % polyester, totaling 100 weight %, and about 20 weight % FR resin, based on said 100 weight %.
- 10) The nonwoven article of claim 1, having about 80 weight % rayon, and about 20 weight % polyester, totaling 100 weight %, and about 20 weight % FR resin, based on said 100 weight %.
- 11) The nonwoven article of claim 1, having about 40 weight % FR acrylic, about 40 weight % FR melamine, and about 20 weight % polyester, totaling 100 weight %.
- 12) The nonwoven article of claim 1, having about 40 weight % FR rayon, about 60 weight % polyester, totaling 100 weight %.

- 13) The nonwoven article of claim 1, having about 30 weight % FR rayon, about 30 weight % FR acrylic, about 25 weight % FR melamine, about 15 weight % polyester, totaling 100 weight %.
- 14) The nonwoven article of claim 1, having about 40 weight % FR rayon, about 30 weight % FR acrylic, and about 30 weight % PET, totaling 100 weight %.
- 15) The nonwoven article of claim 2, having about 50 weight % polyester, about 25 weight % flax, about 25 weight % kenaf, totaling 100 weight %, and about 20 weight % FR resin, based on said 100 weight %.
- 16) The nonwoven article of claim 1, having about 55 weight % FR rayon, and about 45 weight % polyester, totaling 100 weight %.
- 17) The nonwoven article of claim 1, having about 40 weight % FR rayon, about 30 weight % polyester, and about 30 weight % FR polyester, totaling 100 weight %.
- 18) The nonwoven article of claim 1, wherein said natural fiber is flax or kenaf.
- 19) The nonwoven article of claim 17, wherein said FR rayon is Visil® fiber.
- 20) The nonwoven article of claim 17, wherein said FR rayon is coated with 15 wt. % add-on with an FR resin.
- 21) A nonwoven needlepunched article produced from synthetic fiber, natural fibers, and an FR resin, wherein said nonwoven article has a weight of at least 2.25 oz./sq. yd.

- 22) The nonwoven article of claim 21, wherein said synthetic fiber is selected from the group comprising rayon, polyester, or a mixture thereof.
- 23) The nonwoven article of claim 21, wherein said synthetic fiber is from about 15 weight % to about 55 weight % of said article.
- 24) The nonwoven article of claim 21, wherein said natural fiber is flax, kenaf, or a mixture of these.
- 25) The nonwoven article of claim 21, wherein said natural fiber is from about 40 weight % to about 60 weight % of said article.
- 26) A mattress, said mattress having a nonwoven batt comprising at least one of FR rayon fiber, FR acrylic fiber, FR melamine fiber, FR polyester fiber, FR polyolefin fiber, or FR resin coated fiber, wherein said nonwoven batt has a weight of at least 2.25 oz./ sq. yd.
- 27) The mattress of claim 26, wherein said mattress has FR rayon fibers, FR acrylic fibers, FR resin, FR polyester, and non FR polyester fibers.